

SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS <i>OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, AND 30</i>				1. REQUISITION NUMBER W25PHS-3101-9052		PAGE 1 OF 40	
2. CONTRACT NO.		3. AWARD/EFFECTIVE DATE		4. ORDER NUMBER		5. SOLICITATION NUMBER DACW61-03-R-0023	
7. FOR SOLICITATION INFORMATION CALL:		a. NAME ERNEST G SAVOY		b. TELEPHONE NUMBER (No Collect Calls) 215-656-6913		6. SOLICITATION ISSUE DATE 08-Jul-2003	
9. ISSUED BY US ARMY ENGINEER DISTRICT, PHILADELPHIA CONTRACTING DIVISION WANAMAKER BLDG, 100 PENN SQ EAST PHILADELPHIA PA 19107-3390 TEL: FAX:		CODE DACW61		10. THIS ACQUISITION IS <input checked="" type="checkbox"/> UNRESTRICTED <input type="checkbox"/> SET ASIDE: % FOR <input type="checkbox"/> SMALL BUSINESS <input type="checkbox"/> SMALL DISADV. BUSINESS <input type="checkbox"/> 8(A) SIC: 3531 SIZE STANDARD: 750		11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED <input type="checkbox"/> SEE SCHEDULE 13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700) 13b. RATING 14. METHOD OF SOLICITATION <input type="checkbox"/> RFQ <input type="checkbox"/> IFB <input checked="" type="checkbox"/> RFP	
15. DELIVER TO OPS PHYS SB-FT MIFF DISTRIB RICHARD BURNS FORT MIFFLIN DIST. CNTR U.S. ARMY RESERVA PHILADELPHIA PA 19153 TEL: 215-365-5095 FAX:		CODE E5R0720		16. ADMINISTERED BY CODE			
17a. CONTRACTOR/ OFFEROR TEL. FACILITY CODE		CODE		18a. PAYMENT WILL BE MADE BY CODE			
<input type="checkbox"/> 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER		18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a. UNLESS BLOCK BELOW IS CHECKED <input type="checkbox"/> SEE ADDENDUM					
19. ITEM NO.		20. SCHEDULE OF SUPPLIES/ SERVICES		21. QUANTITY		22. UNIT	
		SEE SCHEDULE					
23. UNIT PRICE		24. AMOUNT		25. ACCOUNTING AND APPROPRIATION DATA		26. TOTAL AWARD AMOUNT	
<input type="checkbox"/> 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1. 52.212-4. FAR 52.212-3. 52.212-5 ARE ATTACHED.				ADDENDA <input type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED			
<input type="checkbox"/> 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. FAR 52.212-5 IS ATTACHED.				ADDENDA <input type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED			
28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN 2 COPIES <input checked="" type="checkbox"/> TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED HEREIN.				29. AWARD OF CONTRACT: REFERENCE <input type="checkbox"/> OFFER DATED . YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, IS ACCEPTED AS TO ITEMS:			
30a. SIGNATURE OF OFFEROR/CONTRACTOR				31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER)		31c. DATE SIGNED	
30b. NAME AND TITLE OF SIGNER (TYPE OR PRINT)		30c. DATE SIGNED		31b. NAME OF CONTRACTING OFFICER (TYPE OR PRINT) TEL: EMAIL:			
32a. QUANTITY IN COLUMN 21 HAS BEEN <input type="checkbox"/> RECEIVED <input type="checkbox"/> INSPECTED <input type="checkbox"/> ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED				33. SHIP NUMBER PARTIAL FINAL		34. VOUCHER NUMBER	
32b. SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE				32c. DATE		35. AMOUNT VERIFIED CORRECT FOR	
32b. SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE				32c. DATE		37. CHECK NUMBER	
41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT				38. S/R ACCOUNT NUMBER		39. S/R VOUCHER NUMBER	
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER				41c. DATE		40. PAID BY	
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER				41c. DATE		42a. RECEIVED BY (Print)	
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER				41c. DATE		42b. RECEIVED AT (Location)	
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER				41c. DATE		42c. DATE REC'D (YY/MM/DD)	
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER				41c. DATE		42d. TOTAL CONTAINERS	

Section SF 1449 - CONTINUATION SHEET

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	FFP PROCURE NEW CRANE TO REPLACE PORT 10-TON CRANE ON DREDGE MCFARLAND IN ACCORDANCE WITH THE SPECIFICATIONS AS STATED HEREIN PURCHASE REQUEST NUMBER: W25PHS-3101-9052	1	Lump Sum		
					<hr/>
					NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002	FFP PROCURE NEW CRANE TO REPLACE STARBOARD 10-TON CRANE ON DREDGE MCFARLAND IN ACCORDANCE WITH THE SPECIFICATIONS AS STATED HEREIN PURCHASE REQUEST NUMBER: W25PHS-3101-9052	1	Lump Sum		
					<hr/>
					NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003		1	Lump Sum		

FFP
CONTRACTOR TO PROVIDE TRAINING IN ACCORDANCE WITH
SECTION E, E-8 ENTITLED "TRAINING"

NET AMT

FOB: Destination

SECTION C - DESCRIPTION

SECTION C

DESCRIPTION

TABLE OF CONTENTS

- A. Intent
- B. New Cranes
- C. Electric Motor
- D. Spare Parts
- E. Documentation
- F. Technical Support
- G. Testing

A. Intent

The Army Corps of Engineers, Philadelphia District is issuing this commercial solicitation to procure and contract all services (Engineering and Design, Construction, Testing and Delivery) related to the acquisition of two new replacement cranes to be installed on the Dredge McFARLAND.

The cranes will be installed on the McFARLAND subsequent to their delivery. Under this contract, the cranes shall be provided to the Government complete in all respects, and ready to be installed.

Actual installation of the cranes on board the McFARLAND will occur at a later date, under a separate contract to a shipyard. The cranes will be provided to the shipyard by the government as GFE.

Existing Crane Features

The existing cranes are Skagit Model 10/73 Cranes. Capacity is 20,000 lbs main hoist and 6000 lbs whip line both with the boom 15° from horizontal. These cranes are lattice boom slewing cranes, with boom topping lifts, and two (main and whip) hoists.

The cranes are mounted on the sidecast boom turntable, which is constructed from aluminum alloy. The crane center of rotation is close to the sidecast boom, and the crane topping lift is mounted to the sidecast boom.

The crane boom is slewed from the boom base. The slewing drive is a 25 HP electric motor driven multiple reduction gear, with single worm slewing drive. The gear and motor system are mounted on the turntable structure adjacent to the crane base.

The booms are elevated (topped) using a wire rope topping lift system. Each boom mounts a main hoist line and a whip hoist line.

For each crane, topping lift, main hook and whip lines are all powered by a single 25HP electric motor driven triple drum winch. The winch is mounted remote from the crane base, and the three hoist lines are routed to their respective functional locations by a system of fairlead sheaves. Two winches are installed, each with wire ropes routed to one crane.

The turntable incorporates a vertical mast that is bolted at its top end to the McFARLAND Sidecast boom. The topping lift system is incorporated into the mast. This configuration utilizes

the sidecast boom structure to resist the topping lift horizontal force component, while the turntable mast resists the topping lift vertical force component.

The crane installation details are shown in the Skagit Crane Manual, incorporated in this solicitation.

New Crane Features

The intent of this solicitation is to replace the existing cranes with new cranes that include the following features:

Same lift and radius capacity.

Boom mount in the same location as existing.

Sidecast boom structure utilized in the same manner as the existing cranes.

Electric-hydraulic operating power rather than direct gear drive electric.

Eliminate the separate slewing drive system.

Provide "integral" slewing drive with multiple slewing motor units on ring gear.

Eliminate the triple drum winch.

Mount the main & whip hoist winches on the boom

Mount the topping winch on the turntable

Utilize one common remote hydraulic HPU to power both cranes.

After New Crane Installation

After installation on the vessel (separate from this contract), the new cranes will result in a crane system comprising the two self-contained cranes and a single Hydraulic Power Unit, with no other separate components.

All existing crane components currently in place on board the McFarland will be removed during the shipyard repair period currently scheduled to start on or about 1 September 2003.

B. New Cranes

The Contractor shall provide two new cranes as specified below:

Crane Configuration

The new cranes shall be configured as dimensional replacements for the existing cranes using the existing connections to the sidecast boom. Reference Skagit Corporation Drawing 51763-A. (See Section J).

The crane configuration shall include:

Weld down base with turntable drive
Vertical support pedestal with topping winch.
Support pedestal attachment to sidecast boom
Remote mounted HPU
Lattice Boom
Boom mounted hoist winches

In particular, the new cranes shall incorporate sidecast boom attachment to match the existing cranes. The boom attachment for the new cranes may not increase loading on the sidecast boom.

Crane Capacity

The crane is to be flat rated for a static lift of 10 tons at all radii up to 75 ft on the main block. The crane shall have a whip line rated for 3 tons at a radius of 85 ft. The capacity shall be in accordance with API specification 2C "Category 1 Design Load Requirements."

The crane shall be designed to operate at maximum lift capacity with hull orientation anywhere between the two limits identified following:

max vessel heel 3° combined with max trim of 1° respectively,
max vessel heel of 2° combined with max trim angle of 1.5°.

Crane shall also be designed at maximum lift capacity with wind speed of 50 Knots. Superimposed on the hull orientations above.

The cranes shall be designed to API 2C specifications but need not carry the API2C medallion.

Crane Boom

The cranes shall be supplied with a 75ft lattice boom with an additional 10ft jib section. The topping lift block speed shall be 30 ft/min measured at the main hook pin.

Slewing

The crane boom shall rotate 180° at a speed of 1 revolution per minute at maximum load, with wind and hull orientation parameters as described above.

Main Hoist

The main load hoist shall be mounted to the crane boom. The block speed is 30 feet per minute.

Whip Line

The whip load hook speed shall be 60 feet per minute.

Power Unit

The two cranes shall be driven by a single hydraulic power unit. The prime mover shall be a 480VAC 60Hz TEFC electric motor, minimum 100 HP, driving the necessary hydraulic pumps through a triple pump drive. The motor shall be coupled to the pump drive so that it can be removed without removal of the pump drive.

The hydraulic power unit shall include an integral reservoir, oil cooler, suction strainer and return filters. All hydraulic components are to be pre-plumbed. A properly sized electric motor starter shall be supplied.

The hydraulic Power Unit shall be provided on a unit skid, suitable for bolt down installation. In addition, the hydraulic power unit shall be completely enclosed by a stainless steel weathertight enclosure.

Controls

Crane controls shall be both remote and local at each crane base.

All of the crane functions shall be controlled from a portable remote control console. Swing, topping lift, mainline and whip line functions shall be controlled by electric, fully proportional joysticks. The control system shall incorporate an anti-two block safety interlock. There shall be two separate portable remote control consoles, one for each crane.

These remote control consoles shall control the crane via a docking port, one of which shall be provided for each crane. The docking ports shall be permanently connected to the crane and power unit and shall be waterproof. The remote control consoles shall be supplied with 100' of cord to allow the operator to operate the crane from various locations on the vessel.

Each crane base shall be fitted with a local control manual valve system. The manual valve system shall be mounted on the after side of each crane base. The manual system shall provide proportional control all crane functions.

LMI & Two Block

The cranes shall have a LMI systems and anti two block systems for both main and whip lines. Systems shall be in accordance with the requirements of API 2C. The load read out shall be on an indicator gage on the base of the crane.

Slewing Limit Stops

The cranes shall also be fitted with slewing limit stops to prevent the crane boom from swinging into the sidecast boom. The slewing limit stops shall include both limit switch device to shut down slewing drive, and also hard stops with rubber pad cushion. Both electrical and hard stops shall be bolt down and adjustable.

Coating System

The crane location on the sidecast boom turntable is over the dredge hopper. Gasses escaping from dredge spoil are corrosive. As a result, coating system shall be highly corrosion resistant. The system shall comprise epoxy prime and barrier coat, with a final fade resistant urethane top coat.

Hardware

All hardware to be used for fastening the components to the structure of the vessel shall be AISI 316 stainless steel.

C. Electric motor

All motors shall be NEMA or IEC type, suitable for marine application and sized and designed for continuous operation of the driven auxiliary at rated capacity. Motors shall be designed, constructed, and installed in accordance with ABS Rules; however, ABS certification is not required. All motors shall be equipped with anti-friction bearings. All motors using grease-lubricated bearings shall be provided with grease fittings and shall have positive means for preventing grease from being forced out upon the motor windings. It is expected that the

motors will be provided with their driven auxiliary, and the purpose of identifying the motors by horsepower and voltage is to ensure that the motor is compatible with the power supply available.

All motors exposed to the weather shall have IP-56 (watertight or weather tight) protection. All motors shall have class "F" insulation with a class "B" temperature rise rating based on a 50° C ambient temperature

All motor circuits shall have motor feeder short-circuit and ground-fault protection, disconnect means, motor branch-circuit, short-circuit and ground fault protection, manual reset motor overload protection and integral start/stop push-button set.

Anti-condensation space heaters shall be provided for all motors. Motor space heaters shall generally be powered from the control power of the motor controller and shall be energized whenever the motor is secured and de-energized whenever the motor is operating. All space heaters shall be provided with an "ON"- "OFF"- "AUTO" selector switch and indicating light on the motor controller.

D. Spare Parts

The Contractor shall provide a spare set of hydraulic oil filters and fuses, as well as a recommended list of spare parts. The Government may procure spares from this list by issuing a contract modification.

E. Documentation

Thirty days after the date of the contract award and prior to delivery, the Contractor shall provide a set of certified prints and specifications for :

The cranes including the HPU

The crane power system

The crane control system.

All Crane foundation & sidecast attachment design loads.

The crane manufacturer shall also provide written documentation that the crane is constructed in accordance with API 2C requirements.

At Dock Trials the Contractor shall provide 3 sets of Operation and Maintenance Manuals for review and approval.

F. Technical Support

The Contractor shall provide a service representative at the shipyard for 5 man-days to integrate and startup the cranes and controls, and 5 days to operate the crane during the crane functional and load testing. For planning purposes, contractor shall assume that the cranes will be installed within 3 months of delivery.

G. Testing

Testing requirements are specified in Section E of this procurement.

SECTION D - PACKAGING/ MARKING

SECTION D

PACKAGING AND MARKING

D-1 PACKAGING

D-2 MARKING

SECTION D

PACKAGING AND MARKING

D-1 PACKAGING

The contractor shall package all components. All components shall be delivered to the U.S. Army Corps of Engineers – Fort Mifflin Project Office, Fort Mifflin Rd. Philadelphia, Pa. 19153, after they have been packaged and marked by the contractor in accordance with the requirements of this section.

All components are to be stored at the land based marine repair facility in and will be preserved and packaged for long term "protected" storage.

"PROTECTED" Storage Parts will be stored for extended (two to five years) periods of time in unheated warehouses at a land based marine repair facility in Philadelphia, Pennsylvania.

"PROTECTED" Storage Parts will be coated with paint and other preservative coating systems as recommended by the manufacturer and acceptable to the COR and packaged for mechanical and physical protection as accepted by the Contracting Officer's Representative.

All components shall be packaged in heavy-duty wooden shipping crates, complete with removable lids and internal bracing to prevent movement during transit. All crates shall be constructed from ½”-thick (minimum) exterior-grade, pressure-treated lumber, and shall have runners of sufficient length and height to allow for forklift pickup.

D-2 MARKING

All components will be marked or labeled by the contractor.

All components will be marked with a stencil, in paint of a contrasting color, in at least three places, with letters not less than 3-inches high, with the following information:

DREDGE McFARLAND
SIDECAST CRANE
NAME OF PART (COMPLETED BY THE CONTRACTOR)
DRAWING REFERENCE (COMPLETED BY THE CONTRACTOR)
MANUFACTURER (COMPLETED BY THE CONTRACTOR)
YEAR OF MANUFACTURE (COMPLETED BY THE CONTRACTOR)
CONTRACT NUMBER (COMPLETED BY THE CONTRACTOR)
OTHER IDENTIFYING INFORMATION

All protected components shall be fitted with a plastic nametag, engraved plastic nameplate or other device acceptable to the Contracting Officer's Representative with the following information completed by the contractor:

NAME OF PART & PART NUMBER
NAME OF EQUIPMENT OF WHICH ITEM IS A PART
DRAWING REFERENCE
MANUFACTURER
YEAR OF MANUFACTURE
CONTRACT NUMBER
OTHER IDENTIFYING INFORMATION

SECTION E - INSPECTION

SECTION E

INSPECTION AND ACCEPTANCE

INDEX

CLAUSE

E-1 INSPECTION

E-2 QUALITY CONTROL AND INSPECTION

E-3 TRAILS, TEST AND DEMONSTRATIONS

A. TEST REPORTING

B. CRANE MANUFACTURING INSPECTION AND TESTS (LEVEL 1)

**C. CRANE INSTALLATION AND ASSEMBLY INSPECTIONS AND TESTS
(LEVEL 2)**

D. CRANE DOCK TRAILS (LEVEL 3)

E. FINAL ACCEPTANCE DEMONSTRATION (LEVEL 4)

E-4 FINAL INSPECTION

E-5 PROVISIONAL ACCEPTANCE

E-6 FINAL ACCEPTANCE

E-7 COMMERCIAL WARRANTY OF SUPPLIES

E-8 TRAINING

E-1 INSPECTION

The Contract will be managed by the Philadelphia District of the U.S. Army Corps of Engineers (USACE) and is subject to inspection by its appointed representatives to insure strict compliance with the terms of the Contract. No Government Representative, except the Contracting Officer, is authorized to change any provision of the Specifications, nor shall the presence or absence of an inspector relieve the Contractor from any requirements of the Contract.

After Contract Award, the services to be provided by the crane Contractor shall include

- Engineering and Scheduling
- Construction, Testing and Delivery @ Origin
- Technical Support, Testing and Final Acceptance

During Engineering and Scheduling, the Contractor shall provide all calculations, reports and drawings required to completely represent and demonstrate that the crane design meets or exceeds the requirements of this Solicitation.

During Construction, Testing and Delivery at Origin, the Contractor shall perform CRANE MANUFACTURING INSPECTIONS AND TESTING, at his manufacturing plant, according to the approved QUALITY CONTROL AND INSPECTION PROGRAM, and obtain approval from the COR for the fabricated cranes, to verify that the approved plans are followed, and to warrant compliance with quality assurance requirements.

During Testing and Final Acceptance, the Contractor shall perform at the shipyard. At this point, the crane Contractor shall be concerned with the testing of the cranes during the test phase of the vessel, and final acceptance.

The operation to install and assemble the cranes on the vessel will be carried out by a shipyard, however, the crane manufacturer shall provide complete written "Assembly Instructions and Plans".

During the crane installation and assembly, the crane Contractor shall have at least one representative on site at the shipyard, to provide survey support, and to ensure that the installation and assembly is executed properly, and according to approved procedures. The procedures will be developed and executed by the shipyard, based on the crane assembly instructions and plans.

Validation of the Crane Installation and Assembly, will be verified during the CRANE INSTALLATION AND ASSEMBLY INSPECTIONS, AND TESTS, (LEVEL 2 TESTS). These tests will be conducted by a shipyard against procedures written by the crane Contractor and approved by the COR and ABS, if applicable.

After the cranes are assembled on the vessel, during the vessel test period, the crane manufacturer shall provide the services of operators and other qualified personnel, and carry out

CRANE DOCK TRIALS (LEVEL 3), to demonstrate proper operation and proper performance of the cranes.

During all phases of this Contract, including testing, the Contractor is authorized to use sub-Contractors performing under his direction and supervision; however, the Contractor shall assume full responsibility for their work.

The Contractor shall provide all labor, services, tools, materials, equipment, fuels, fluids, lubricants, and testing media, and perform tests on all equipment, machinery, and systems to verify that they are performing in accordance with the intent as described and specified in Section C, "DESCRIPTION/SPECIFICATIONS/WORK STATEMENTS."

E-2 QUALITY CONTROL AND INSPECTION

The Contractor shall develop and submit to the COR, a CONTRACTOR QUALITY CONTROL AND INSPECTION PROGRAM, and a TEST AGENDA (or schedule), for the required work of this Contract. This Program shall provide for regular inspection and testing of the work in progress, and account for the preparation and maintenance of Quality Control documentation and records.

The Quality Control Program shall list the Contractor Representatives who are authorized to witness or perform, and sign for each inspection or test.

The following is an example of data to be recorded for each inspection or test:

- Type of inspection or test (e.g., visual, mechanical, liquid penetrant, radiographic), accept / reject criteria, and a statement as to whether the inspection was satisfactory or unsatisfactory.
- Number and type of deficiencies of material or workmanship found in the product or sub-product inspected and corrective action taken to correct the deficiencies and, for repetitive deficiencies, to preclude recurrence.
- Date and signature of the Authorized Contractor Representative who performed the test or inspection, and date and signature of the Authorized ABS and Government Representative who witnessed the test or inspection (if applicable).

Work sub-Contracted and performed away from the Contractor's plant is covered by this inspection system. The Contractor cannot delegate the authority to witness, perform, and sign for tests and inspections conducted away from his plant, without approval of the COR.

Contractor certified inspection is an integral part of all work, therefore, the COR will consider the entire Contract incomplete if Contractor documentation and records signed by the Contractor's Authorized Representative are not complete.

The TEST AGENDA shall be a complete, detailed schedule of all inspections and tests. The Agenda shall be arranged by day (i.e. day one, day two, etc.), not date, and shall list the specific inspections and tests, and the sequence in which these will be performed.

E-3 TRIALS, TESTS AND DEMONSTRATIONS

A. Test Reporting

The following 4 levels of inspection and testing shall be considered:

LEVEL 1. CRANE MANUFACTURING INSPECTIONS AND TESTS

LEVEL 2. CRANE INSTALLATION AND ASSEMBLY INSPECTIONS AND TESTS

LEVEL 3. CRANE DOCK TRIALS

LEVEL 4. FINAL ACCEPTANCE DEMONSTRATIONS

Level 1 shall be performed at the crane Contractor Plant, and levels 2, 3 and 4 shall be performed at the shipyard.

The responsible Contractor shall rectify any deficiencies revealed during any level of testing; all retesting shall be completed satisfactorily prior to the commencement of the next Level of testing.

The successful completion of all tests, trials, demonstrations and remedied deficiencies, shall be determined by the COR.

For all Levels of testing 1 through 4, the crane Contractor shall prepare The INSPECTION AND TEST MEMORANDA for the inspections, tests and trials. The Test Memoranda shall be submitted to the COR for review and approval within 30 days of the contract award. Allow 10 working days for review and approval.

The Contractor shall prepare a Test Memorandum for each test, typed on 8-1/2 inch by 11 inch sheets of paper, single sided, and assemble them in three ring binders, with dividers for each system and equipment, to constitute the Inspection and Test Memoranda, which will become the TEST REPORT after all inspections and tests have been performed. The TEST REPORT shall be the completed version of the Inspection and Test Memoranda, with the "blanks" filled in with the test data.

The TEST MEMORANDA / TEST REPORT shall be arranged by system and level of testing according to the same outline, LEVEL 1 through LEVEL 4.

Each test memorandum shall describe the test procedure, and data taken. The procedure shall be in accordance with the "start-up" procedure for the equipment, as delineated in the operating manual of the equipment manufacturer, and shall reference the Operator's Manual used to format the test procedure. Data recorded in time intervals shall be tabular so that data trends can be easily recognized.

Each Test Memorandum shall describe instrumentation and equipment required for each test, and shall include space for relevant nameplate data, ambient conditions, tested parameter values for each time interval, comparative pass/fail values, comments, Contractor Representative witness and Government and ABS Representative witness signatures and date.

For each test, the acceptance criteria must be explicitly spelled out in the Test Memorandum, and concurrently, shall reference the applicable source standard.

The Contractor shall incorporate demonstrations of all controls, instruments, and alarms, into each test, and repeat them in the Final Acceptance Demonstrations, Level 4.

Within 3 days of the completion of any test in any level, a copy of the documentation of that test shall be provided to the COR for review. Allow 10 working days for review and approval.

The final version of the TEST REPORT, including the test data and the results of all levels of inspections and tests, shall be bound in three ring binders, and submitted in triplicate, within 30 calendar days following successful completion of the Level 4 Final Acceptance Demonstrations, and prior to Final Payment.

Final Payment will not be made until the TEST REPORT has been completely approved by the Contractor and by the COR and all ABS required tests have been performed satisfactorily.

B. Crane Manufacturing Inspections and Tests (LEVEL 1)

The Test Memoranda for LEVEL 1 testing is the CONTRACTOR QUALITY CONTROL AND INSPECTION PROGRAM.

Vendor and Manufacturing Inspections and Tests shall be designed to insure proper construction, performance and/or installation of equipment, piping and electrical systems, tanks, and exterior and interior fabrication of the cranes.

The COR must be notified at least 5 working days prior to the scheduled commencement of any Vendor Tests or Manufacturing Inspections and Tests, which shall be scheduled in sequence as per the TEST AGENDA.

C. Crane Installation and Assembly Inspections and Tests (LEVEL 2)

The shipyard will perform the crane installation and assembly at the yard.

The crane Contractor is required to submit to the COR, within 30 calendar days of Contract Award, (for inclusion in the shipyard Contract), the Level 2 Inspection and Test Memoranda, which shall establish the procedures to validate the installation and assembly of the cranes, to be performed by the shipyard.

The Tests shall be of sufficient scope and duration to assure that all machinery and equipment is operable and all systems are complete. The intent of this testing is to provide both the crane Contractor and the COR, reasonable assurance that installation and assembly have been executed satisfactorily, and that the crane is ready for formal Dock Trials (Level 3).

The COR shall be notified, in writing, at least 5 working days prior to the scheduled commencement date of Level 2 tests.

For the level 2 tests, the shipyard is responsible for providing labor, materials, fuel, test media, tools, equipment, etc., as indicated in the applicable Level 2 Inspection and Test Memoranda developed by the crane Contractor, and approved by the COR.

As a minimum, the following Level 2 Inspections and Tests must be performed:

Physical Inspection

Prior to any testing, the shipyard is required to perform a physical inspection of the crane IAW Appendix H of the USACE Safety and Health Requirements Manual. Required inspection points are found in the section “Criteria for Periodic Inspection”

Hydraulic Piping:

Test the clean hydraulic piping at 1-1/2 times the system design pressure for a duration of no less than 10 minutes per test. Spray liquid dish detergent water solution on all system welds and joint connections and check for leaks.

NOTE: COR to be present for tests.

Flush the hydraulic piping prior to operation to remove contaminants. Bypass hydraulic users until the system is clean to avoid damaging seals, O-rings or other surface.

Electric Cabling:

The electric cabling shall be tested, taking insulation resistance readings of all installed power and lighting cable, using a 500 volt resistance meter, (in accordance with IEEE Standard 45, Section 46). The measured cable insulation resistance must meet or exceed the minimum values outlined in the referenced IEEE publication.

Principal Dimensions - Verification:

Verification that the crane does comply with the following principal characteristics:

BOOM LENGTH - from the heel pins to the main hoist, the length is 75’.

BOOM ALIGNMENT - verification of boom alignment.

RADIUS REACH - calibration of the radius reach indicator, and measurement of the minimum radius reach for the main hoist.

D. Crane Dock Trials (LEVEL 3)

Crane Dock Trials shall be performed by the crane Contractor at the shipyard with the vessel in the water.

Prior to the start of Dock Trials, all construction and installations must be complete (except for final cleaning and touch-up painting), and all Level 1 and Level 2 testing must be successfully completed and documented.

The Test Report must be current through level 2 testing, and approved by the COR, before Level 3 testing can proceed.

Commencement of Dock Trials shall not be sooner than 3 full working days after completion of Level 2 tests. The COR shall be notified in writing 5 working days in advance of the date set for Level 3 testing.

For LEVEL 3 TRIALS, the crane Contractor shall furnish all labor, test media, oils, tools and test equipment, except as otherwise indicated in this part.

The Contractor shall demonstrate the proper installation and operation of all equipment and systems installed in the cranes, and demonstrate controls, instrumentation and alarm operation as applicable.

All testing and trials shall be conducted in the presence of Government representative(s), ABS representative(s), and vendor representative(s) as required. The tests shall be conducted in accordance with the Agenda.

The success of all tests and trials, and the existence of any deficiencies shall be determined by the COR.

As a minimum, the following Crane Tests and Maneuvers must be performed:

Unloaded Operation
Main Hoist Load Test
Auxiliary Hoist Load Test

Unloaded Operation:

Crane unloaded performance shall be tested IAW the USACE Safety and Health Requirements Manual EM385-1-1, Appendix I, Table I-1.

Main Hoist Load Test:

Crane main hoist performance shall be tested IAW the USACE Safety and Health Requirements Manual EM385-1-1, Appendix I, Table I-1.

Auxiliary Hoist Load Test:

Crane auxiliary hoist performance shall be tested IAW the USACE Safety and Health Requirements Manual EM385-1-1, Appendix I, Table I-1.

NOTE: All crane test loads shall be calibrated to the satisfaction of the crane contractor and the government representative, and will be provided, and placed within reach of the cranes by the government

E. Final Acceptance Demonstrations (LEVEL 4)

Final Acceptance Trials are operability tests the Contractor must perform for the USACE operators. The intent of LEVEL 4 testing is to demonstrate the capabilities and features of the cranes to the operators, and to verify that the delivered product is in peak operating condition.

The Contractor shall notify the Government in writing when the cranes will be ready for final acceptance and coordinate agreement on a date mutually acceptable to the Contractor and the Government.

The Contractor shall operate all equipment on the cranes, to demonstrate their features, characteristics, and capabilities. The duration and complexity of each procedure shall be sufficient to fully demonstrate the operating condition to the operators.

Final Acceptance Demonstrations shall be conducted in the presence of the COR and the vessel(s) crew, following successful completion of Level 3 tests and correction of all deficiencies. The COR at his discretion may consider all or some LEVEL 4 trials completed during LEVEL 3 trials.

E-4 FINAL INSPECTION

When all work and testing has been satisfactorily completed, the Contractor and the Government Representative(s), shall make a complete physical inspection and inventory of the cranes, against all Contract requirements.

A "punch list" of deficiencies (if any), will be developed and presented to the Contractor for corrective action.

All corrective action necessary to eliminate the "punch list" shall be completed by the Contractor. The Contractor shall give the COR, 3 working days notice prior to the desired date of re-inspection.

Prior to any re-inspection, the crane and all its equipment shall be thoroughly cleaned and all painting and finishes put in first class condition.

E-5 PROVISIONAL ACCEPTANCE

Following satisfactory completion of all tests and trials at origin, correction of all "punch list" deficiencies, and receipt of all Contract deliverables, the cranes will be Provisionally Accepted.

E-6 FINAL ACCEPTANCE

Final Acceptance will be made upon delivery of the Crane "Ready for Service" onboard the vessel.

"Ready for Service" is defined as clean inside and out; all trash, dunnage, lashings, and delivery related material disposed of; loose items of outfit in place; all electrical and mechanical systems operational; equipment properly adjusted; instruments and electronics calibrated or aligned, tanks filled, and paint damaged during transportation touched up.

E-7 COMMERCIAL WARRANTY OF SUPPLIES

The Contractor shall assign, in writing, all commercial warranties for equipment provided under this Contract to the Government.

THE EFFECTIVE DATE OF ALL COMMERCIAL WARRANTIES SHALL BE THE DATE OF FINAL ACCEPTANCE.

E-8 TRAINING

The Contractor shall provide two sessions of training on crane operation and maintenance to 6 USACE operators for a period of two days (16 hours) per session. The training shall be administered in the Philadelphia, Pennsylvania area. For planning purposes, the training shall occur sometime during the period January thru April of the calendar year 2004.

SECTION F - DELIVERY

SECTION F

DELIVERY OR PERFORMANCE

F-1 PERFORMANCE

F-2 PLACE OF DELIVERY

SECTION F
DELIVERIES OR PERFORMANCE

F-1 PERFORMANCE

TIME OF DELIVERY

(a) The Offeror is required to propose a delivery schedule for the system. The Offeror shall complete the schedule below by entering a number of Calendar Days to complete the Contract Line Item Number (CLIN).

The proposed schedule will be a proposal evaluation factor.

OFFEROR'S PROPOSED DELIVERY SCHEDULE

ITEM NUMBER	DESCRIPTION	QUANTITY	WITHIN DAYS AFTER DATE OF NOTICE TO PROCEED
0001	PORT SIDECAST BOOM CRANE & CONTROL SYSTEM	1 LOT	
0002	STARBOARD SIDECAST BOOM CRANE & CONTROL SYSTEM	1 LOT	
0003	TRAINING	1 LOT	

REQUIRED DELIVERY SCHEDULE

ITEM NUMBER	DESCRIPTION	QUANTITY	WITHIN DAYS AFTER DATE OF NOTICE TO PROCEED
0001	PORT SIDECAST BOOM CRANE & CONTROL SYSTEM	1 LOT	120

0002	STARBOARD SIDECAST BOOM CRANE & CONTROL SYSTEM	1 LOT	120
0003	TRAINING	1 LOT	JAN-APR 2004

F-2 PLACE OF DELIVERY

The Contractor shall deliver the sidecast boom cranes & control system along with all components at the following location:

Shipment shall be made F.O.B. destination:

Fort Mifflin Distribution Center
6400 Hog Island Road
Philadelphia, PA 19153

P.O.C.: Mr. Richard J. Burns, Superintendent
(215) 365-5095, FAX (215) 365-0808

Delivery of all parts shall be coordinated through Mr. Burns. The contractor is required to give Mr. Burns three working days (Monday through Friday) notice of a delivery so that adequate staff and equipment is available to offload the material. Any delay and disruption charges that result from improper notice shall be the responsibility of the contractor.

SECTION G - CONTRACT ADMIN

SECTION G

CONTRACT ADMINISTRATION DATA

G-1 ACCOUNTING AND APPROPRIATION DATA

G-2 CONTRACT MANAGEMENT

G-3 PAYMENT OFFICE

G-4 CONTRACT ADMINISTRATION

SECTION G

CONTRACT ADMINISTRATION DATA

G-1 ACCOUNTING AND APPROPRIATION DATA

WORK ORDER ITEMS :

G-2 CONTRACT MANAGEMENT

Philadelphia District
U.S. Army Corps of Engineers
Wanamaker Building
100 Penn Square East
Room 630 South
Philadelphia, Pennsylvania 19107-3391

G-3 PAYMENT OFFICE

U.S. Army Corps of Engineers Finance Center
5720 Integrity Drive
Millington, TN 38054-5005

G-4 CONTRACT ADMINISTRATION

Commander and District Engineer
U.S. Army Corps of Engineers District, Philadelphia
ATTN: CENAP-CT-C
Wanamaker Building
100 Penn Square East
Room 643
Philadelphia, Pennsylvania 19107-3390

SECTION H - SPECIAL
SECTION H

SPECIAL CONTRACT REQUIREMENTS

H-1 “AS BUILT” DRAWINGS

H-2 MANUFACTURER OR SUBCONTRACTOR DRAWING AND MANUALS

SECTION H

SPECIAL CONTRACT REQUIREMENTS

H-1 "AS BUILT" DRAWINGS

In order to facilitate the engineering design and physical integration of the replacement sidecast boom crane and control system, the Contractor shall provide a record of the "As-Built" drawings, calculations, and documents to clearly show the components being provided. These documents shall be of a sufficient level of detail to allow the Government to complete the engineering design to install the replacement sidecast boom crane and control system.

The "As-built" materials shall be delivered as follows:

- ☐ Prior to shipment and delivery, the Contractor shall submit one set of prints of the "As-Built" drawings for review and approval.
- ☐ Prior to acceptance and final payment, the Contractor shall provide the following:
- ☐ One set of black or blue line prints of all "As-Built" drawings.

Two sets of electronic files of all CADD prepared drawings. The files shall be provided on 4-3/4" 650 MB 74 min digital compact disk (CD) in AutoCAD R14 .dwg file format or higher. Each drawing sheet shall be a separate electronic file with a filename, which conforms to the file naming convention below. Compression utilities such as PKZIP may not be used.

Same drawing files on 4-3/4" 650 MB 74 min digital compact disk (CD) in TIF format.

Each complete set of files on CD shall be labeled and indexed in numerical order by filename. A copy of the index shall be furnished in protective plastic sleeves and on the CD cover sheet.

Files furnished on CD shall be encased in standard plastic jewel boxes, slimline jewel cases are not acceptable.

The Government shall have limited use of the drawings and documents listed on the drawing index for repair and maintenance purposes only, including the ordering of spare parts.

H-2 MANUFACTURER OR SUBCONTRACTOR DRAWINGS AND MANUALS

The Contractor shall provide three complete sets of drawings and manuals for each piece of machinery and equipment provided by the Contractor; that clearly describe the operation, construction, maintenance, repair, adjustment, lubrication, parts lists and "trouble shooting" of every item of machinery and equipment. This shall include Detailed Fabrication Drawings where they exist.

Manuals shall be in the English language with all dimensions in the foot-pound-second systems of units. Manuals shall be no larger than 8 inches x 11 inches, and bound in hard covers of durable materials.

Manufacturer or subcontractor drawings may be included in the manual but must be folded to page size.

Prior to shipment and delivery, one set of the manuals shall be submitted to the Contracting Officer's Representative for review, comment and/or approval. This set of manuals will be returned to the Contractor with approval or comments.

Final submittal of the manuals shall consist of three sets of the manuals and must be completed prior to acceptance and final payment.

If photocopies (Xerox or similar) of parts lists, text, diagrams, etc., are furnished, one of the sets shall be a "Master" and must be made up of all "original" sheets and be clearly identified as the "Master" copy. Photocopies will be clear with high black/white contrast, sharp lines, full sheet reproduction, and no background shadow or clutter.

Where catalog "cut-sheets" are provided, all information not pertinent to the equipment or machinery provided shall be obliterated.

SECTION J ATTACHMENTS

SECTION J

LIST OF DOCS, EXHIBITS AND ATTACHMENTS

J-1 PERFORMANCE EVALUATION FOR SERVICE & SUPPLY CONTRACTS

In accordance with Federal Acquisition Regulation 42.15 and Engineer Regulation 715-1-19 dated July 5, 1996, this contract action is subject to the requirement for Contractor performance evaluation in the elements listed on the attached form.

At a minimum, the performance evaluation shall be completed within 45 days of completion of each year's performance. Additional (interim) evaluations may be prepared if any element listed is being performed unsatisfactorily.

The period of evaluation will begin on the date of acknowledgment of receipt of the Notice To Proceed and will run concurrent with the performance period of the contract.

J-2 LIST OF GOVERNMENT-FURNISHED DRAWINGS

Technical Manual 20,00 Lb Derrick Model 10-73

SECTION M - EVAL FOR AWARD

SECTION M

EVALUATION FACTORS FOR AWARD

The Government intends to award a Contract on the basis of “Best Value.” The Government will award a Contract resulting from this Solicitation to the responsible Offeror whose Proposal, conforming to the Solicitation; will be most advantageous to the Government.

The Proposals will be reviewed for completeness against the content requirements outlined in Section L, and evaluated against the evaluation factors listed below:

- ☐ Product
- ☐ Management
- ☐ Past Performance and Experience
- ☐ Price Reasonableness

Further discussion of these factors, formant and specific topics to be addressed in the Proposal, are listed and described in Section L, “Instructions, Conditions and Notices to Offerors,” which contains the specific Proposal submittal requirements pursuant to this Solicitation, Offerors are advised that each Proposal submitted shall be complete and in the formant required, with information organized as specified in Section L.

The Government may award a Contract on the basis of initial Proposals received without discussions; therefore, each initial Proposal should contain the Offeror’s best terms.

The Government reserves the right to award the Contract to the Offeror whose Proposal is not the lowest in price.

SECTION L

INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS

TABLE OF CONTENTS

PROPOSAL REQUIREMENTS AND EVALUATION CRITERIA

A. GENERAL REQUIREMENTS

B. PRODUCT EVALUATION CRITERIA

C. REQUIRED PRODUCT PROPOSAL SUBMITTALS

C-1 List of Proposed Deliverables

C-2 Product Features

D. MANAGEMENT EVALUATION CRITERIA

E. REQUIRED MANAGEMENT PROPOSAL SUBMITTALS

- E1. Organization
- E2. Facilities and Equipment
- E3. Project Sub-Contracting Plan 4
- E4. Project Quality Control Plan 5
- E5. Project Planning / Schedule 5
- E6. Financial Condition 5

F. PAST PERFORMANCE AND EXPERIENCE CRITERION

G. REQUIRED PERFORMANCE AND EXPERIENCE PROPOSAL SUBMITTALS

H. PRICE EVALUATION CRITERIA

I. REQUIRED PRICE SUBMITTALS

I.1. Price Proposal

PROPOSAL REQUIREMENTS AND EVALUATION CRITERIA

A. GENERAL REQUIREMENTS

Offerors shall submit three copies of the entire Proposal for evaluation. The Proposal shall include a Table of Contents for the complete Proposal to identify the content to locate specific elements or topics that must be addressed by the Offerors, as outlined in this Section. Page separators or tabs can be used.

Page B-1 of the Solicitation must be filled in and included with the Proposal to reflect the offered price. This page is the Price Proposal, and must be separate or separable from the rest. Price information shall only be displayed on page B-1 and shall not be included anywhere else within the Proposal, to allow for the review by the Government representatives to take place without the influence of price.

The Offerors are advised that each Proposal submitted must be complete, and shall be organized to address the specific elements or topics required, in the sequence outlined in this Section. This is necessary to facilitate and expedite an effective review.

Offerors that submit Proposals that are not complete, may or may not be given the opportunity to submit any additional material, and may be considered non-responsive. As a minimum, the information required in this Section shall be included in each Proposal submitted. Additional data, which would serve to clarify the Proposal, should also be submitted. Any other information deemed necessary by the Contracting Officer for a clear understanding of the Proposal shall be furnished if requested.

Proposals shall not include alternative features offered as options within the Proposal. Each Proposal must be clear as to the services and features to be offered without contingency. This will facilitate a fair and equitable review and evaluation. The same Offeror, however, may send in more than one complete Proposal, to propose alternative features and price.

The Proposals will be reviewed for completeness and evaluated on their merits against the evaluation factors listed below.

Technical Factors:

Product
Management
Past Performance and Experience

Price Factors:

Price Reasonableness

The Technical Factors are listed in descending order of importance. The Technical Factors as a whole are more important than Price; however, Price remains a significant factor in determining "Best Value".

B. PRODUCT EVALUATION CRITERIA

The Product Evaluation Criteria for the Proposals will be how well suited the proposed crane system is for the stated mission and its demonstrated performance in similar applications. Accordingly, the proposed crane system will be evaluated on such factors as performance, reliability, maintainability and suitability of the cranes for installation aboard the dredge.

C. REQUIRED PRODUCT PROPOSAL SUBMITTALS

C1. List of Proposed Deliverables

The purpose of this submittal is for the government to evaluate the completeness and extent of the engineering drawings and data that will be furnished during the engineering phase of the contract and prior to construction. The offeror shall furnish a list of the drawings and engineering data that will be developed and provided to the government after contract award, during the engineering phase of the contract.

C2. Product Features

- ☐ A general description of the proposed cranes, drive and control system followed by an itemized list of the system components.
- ☐ Catalogue sheets providing manufacturer's detailed information for each system component.
- ☐ Narrative descriptions of the proposed crane system's operation, performance, materials of construction and all design features specified in Section C of this contract, with emphasis upon those features that demonstrate maintainability, performance, reliability and suitability for its intended service and location in the dredge.
- ☐ Performance data sheets, cross-sectional drawings, photographs, test results, operational procedures, installation instructions, periodic maintenance requirements and any other information germane to the performance and quality of this product.
- ☐ A scaled preliminary drawing showing the elevation and footprint of the proposed crane system to be overlaid on a drawing of the existing structure. (See Section J for prints).
- ☐ Product certification and standards that the crane system meets, if any.
- ☐ An overview plan for testing.

D. MANAGEMENT EVALUATION CRITERIA

The Management Evaluation Criterion for Award shall be the capability demonstrated by the Offeror to successfully perform and respond to the requirements of this project.

The Offeror shall demonstrate in the Proposal that his Organization has the proper design, quality assurance production, financial and managerial resources available, and has proposed sufficient resources to successfully perform the work required.

E. REQUIRED MANAGEMENT PROPOSAL SUBMITTALS

The following topics must be addressed in narrative form. Drawings or pictures to convey the information are encouraged. Each topic shall be addressed to the degree necessary to provide the reviewers with a clear understanding. As a minimum, the information requested below shall be included in each Proposal submitted:

E1. Organization

The Offeror shall provide clear and complete information on his organization as follows:

- ☐ Name and type of company.
- ☐ Brief history of company.
- ☐ Principal ownership, subsidiaries, and corporate affiliations.

E2. Facilities and Equipment

The Offeror shall furnish a description of the facilities and major equipment available for this project.

E3. Project Sub-Contracting Plan

If applicable, the Offeror shall describe the extent of sub-Contracting contemplated on this project, the specific areas to be sub-Contracted and the identities of the sub-Contractor(s). The contractor shall identify the use of any small disadvantaged or small businesses, or any woman-owned sub-contractors they may use as subcontractors.

E4. Project Quality Control Plan

The Offeror shall make a brief description of his Quality Control / Quality Assurance Organization, and how it will be applied to this project. Copy of ISO certification shall be provided if applicable.

E5. Project Planning / Schedule

The Offeror shall submit with his Proposal, a Plan of Action and Project Schedule.

The Offeror shall submit with his proposal a desired payment schedule based upon measurable milestones and percentage completion.

The planning and scheduling information shall demonstrate a logical, orderly and workable approach to the Project and the Contract.

After Contract Award, the Contractor is required to perform according to his proposed Project Schedule. Actual performance after Contract Award shall be compared against the proposed schedule and shall be reported monthly to the COR.

E6. Financial Condition

Describe why the Government should be confident that this project would be successfully completed from a financial standpoint. Report briefly on the Offeror's financial resources.

F. PAST PERFORMANCE AND EXPERIENCE CRITERION

Past performance means the offeror's rating in formalized Government or customer surveys, including the Government assessment of performance and any previous contracts if applicable.

Contracts terminated by convenience of the government in the past three years, and/or contracts terminated for default in the past 5 years shall be reported if applicable.

Demonstrated experience during the past 5 years in the construction of cranes of similar type and equivalent level of complexity will be evaluated.

The Government may at its discretion contact representatives of customers to obtain input pertaining to past performance.

G. REQUIRED PERFORMANCE AND EXPERIENCE PROPOSAL SUBMITTALS

The offeror shall provide a discussion of the organizations past performance, making reference to ratings in formalized Government or customer surveys as applicable. List any contract that was terminated by convenience of the government in the past three years, and/or any contract terminated for default in the past 5 years.

The offeror shall also provide a discussion of the organization's experience during the past five years in the design, construction and testing of similar cranes. Included in the list shall be points of contact for reference, as well as telephone numbers and e-mail addresses where they may be reached.

H. PRICE EVALUATION CRITERIA

The Price Evaluation Criteria for Award is "Price Reasonableness". The competitiveness of the Offeror's Price Proposal, (page B-1) will be evaluated taking into consideration the most probable price of doing business with the Offeror, based on the merits of the "Technical Factors" in the proposal.

I. REQUIRED PRICE SUBMITTALS

II. Price Proposal

A price for the work outlined in this solicitation for the entire job shall be provided with the Proposal by filling in page B-1 of this solicitation. Note that page B-1 must be returned with the Proposal separately, or be separable from the rest of the Proposal.

